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U.S. Department of the Interior • U.S. Geological Survey

**MINERAL INDUSTRY SURVEYS**

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**MAGNESIUM IN THE SECOND QUARTER 1996**

U.S. primary magnesium production in the second quarter of 1996 was 34,300 metric tons, a 7% decrease from first quarter production, according to the U.S. Geological Survey. Producers' shipments in the second quarter were 33,100 tons, and inventories increased to 17,200 tons.

Magnesium exports through May were 8% higher than those in the corresponding period of 1995. Imports of magnesium in

the first 5 months of 1996 were 24% higher than those in the same period of 1995. Increases in imports of primary magnesium were the principal contributor to the overall increase.

Primary magnesium prices continued to decline as they have since the fourth quarter of 1995. Published magnesium prices for the second quarter of 1996 are shown in the following table.

	Units	Beginning of quarter	End of quarter
Metals Week U.S. spot Western	Dollars per pound	\$1.90-\$1.94	\$1.90-\$1.94
Metals Week U.S. spot dealer import	do.	1.80-1.85	1.63-1.68
Metals Week European free market	Dollars per metric ton	3,350-3,500	2,900-3,100
Metal Bulletin free market	do.	3,400-3,700	2,700-3,150

As a result of an administrative review, the International Trade Administration (ITA) amended its antidumping order on imports of pure magnesium from Canada. For the period August 1, 1994, to July 31, 1995, the ITA determined that the weighted average dumping margin for magnesium imports from Norsk Hydro Canada Inc. was 0%. This deposit rate will be effective for all pure magnesium imported into the United States from Norsk Hydro Canada after August 12, 1996, the publication date of the final results.<sup>1</sup>

The European Commission (EC) retained its antidumping duties on Russian and Ukrainian magnesium imports despite a lapse in the provisional decision. However, the duties on both countries' imports were lowered. The minimum import price for Russian magnesium was lowered from 2,735 ECU per ton to 2,602 ECU per ton, and the minimum import price on Ukrainian magnesium was lowered from 2,701 ECU per ton to 2,568 ECU per ton.<sup>2</sup> Under terms of an undertaking agreement, however, these duties will be suspended for some imports.

Under a clause in the undertaking agreement between the EC, Russia, and Ukraine, specified small quantities of magnesium that are invoiced to a EC-approved importer will not be subject to the duties, even though they are brought in below the minimum value.<sup>3</sup>

Hydro Magnesium announced that it would spend C\$20 million to increase capacity at its Becancour, Canada, magnesium facility. The company planned to construct a 15,000-ton-per-year alloy casting line and establish technology to recycle and reprocess some residues. Both projects were expected to be complete by the end of 1997.<sup>4</sup> These expansions were announced as a result of a long-term contract that was signed with General Motors Corp. for Hydro Magnesium to provide the auto manufacturer with a significant, but unspecified, quantity of magnesium alloys on a fixed-price basis. Complete contract details were not disclosed, but the contract was expected to continue well into the next decade.<sup>5</sup>

In July, Garfield Alloys announced that it would build a new

magnesium recycling facility in Bellvue, OH, with a total annual capacity of 13,600 tons. The company already operates a 9,100-ton-per-year recycling plant near Cleveland. The new plant, which was scheduled to be in operation by the second quarter of 1997, will operate under the name MagReTech Inc. and will process clean Type I magnesium scrap only. The facility should have the potential to double its capacity if conditions warrant.<sup>6</sup> Spectrulite Consortium also was continuing its efforts to increase recycling capacity at its Madison, IL, plant. The company has added 8,000 tons of annual capacity by installing new equipment and planned to increase annual output by 18,000 tons by the end of 1998.<sup>7</sup> Both Garfield Alloys and Spectrulite are installing new capacity in response to increased scrap generation by the diecasting industry. Spectrulite estimated that the scrap generation rate for diecasting operations was 40% to 50%.

Israel was continuing with plans to become a major player in the magnesium sector. Ortal Diecasting reportedly signed an agreement with Germany's Audi AG to produce magnesium parts for the auto manufacturer. Ortal's magnesium supplier was expected to be Dead Sea Magnesium from its new plant in Sdom, beginning in 1997.<sup>8</sup> Dead Sea also completed a sole-agency deal with Japan's Nissho Iwai to supply the firm with 5,000 tons per year of magnesium beginning in 1997 after the Sdom plant opens.<sup>9</sup>

Japan's magnesium demand reportedly reached 30,500 tons in 1995; the first time that demand exceeded 30,000 tons. The country was totally dependent on imports to supply its primary magnesium requirements, and China, with 17,700 tons, was its largest import source in 1995. Aluminum alloying continued to be the principal use for magnesium in Japan, accounting for about 70% of total demand.<sup>10</sup>

MSI Magnesium Services Inc. reportedly entered into a joint-venture research program with the Alberta Research Council to

develop magnesium recycling technology for its planned 32,000-ton-per-year plant. The C\$1.2 million project will cover 4 years and was expected to provide MSI with secondary magnesium production technologies and processes for high-yield recovery of magnesium scrap.<sup>11</sup>

The International Magnesium Association held its 53rd annual conference in Ube City, Yamaguchi, Japan, on June 2-4, 1996. More than 400 people from 19 countries attended the meeting. Presentations included overviews of the magnesium industry in China and Russia, and technical papers covering aspects of magnesium diecasting, thixomolding, and metal-matrix composites. Copies of the proceedings are available from the International Magnesium Association for \$80.00.

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<sup>1</sup>Federal Register. Pure Magnesium from Canada; Final Results of Antidumping Duty Administrative Review. (Dep. Commerce, Int. Trade Admin.). V. 61, No. 156, Aug. 12, 1996, pp. 41771-41773.

<sup>2</sup>Platt's Metals Week. Europe To Keep Antidumping Duties on Russian Magnesium. V. 67, No. 29, July 15, 1996, pp. 1, 10.

<sup>3</sup>———. Mg Duties Suspended Under Clause. V. 67, No. 30, July 22, 1996, p. 6.

<sup>4</sup>Metal Bulletin. Hydro Plans To Spend \$20m on Casting Operations. No. 8097, July 18, 1996, p. 9.

<sup>5</sup>Platt's Metals Week. General Motors, Hydro Magnesium Sign Long-Term Contract. V. 67, No. 24, June 10, 1996, pp. 1, 7.

<sup>6</sup>———. US Magnesium Recycler Garfield To Build New Facility. V. 67, No. 29, July 15, 1996, pp. 10-11.

<sup>7</sup>Metal Bulletin. Garfield Plans USA's Third Magnesium Plant. No. 8096, July 15, 1996, p. 12.

<sup>8</sup>Platt's Metals Week. Ortal Ties Up Mg Deal. V. 67, No. 30, July 22, 1996, p. 6.

<sup>9</sup>Metal Bulletin. DSM Completes Mg Deal With Nissho Iwai. No. 8088, June 17, 1996, p. 10.

<sup>10</sup>Roskill's Letter From Japan. Magnesium: Japanese Demand Reaches a Record Level. No. 242, June 1996, pp. 16-17.

<sup>11</sup>Platt's Metals Week. MSI-Magnesium in Research JV for Secondary Magnesium. V. 67, No. 24, June 10, 1996, p. 7.

TABLE 1  
U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM 1/

(Metric tons)

	1995	1996				
		Jan.-Feb.	Mar.	Apr.	May	Jan.-May
Imports:						
Metal	6,480	2,190	713	2,200	2,060	7,160
Waste and scrap	11,500	814 r/	294	309	346	1,760
Alloys (magnesium content)	15,900	3,020	1,350	1,630	1,510	7,510
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	866	96	71	17	114	297
Total	34,800	6,120	2,430	4,160	4,030	16,700
Exports:						
Metal	21,500	2,660	1,270	1,650	1,410	6,990
Waste and scrap	3,540	1,280	556	672	799	3,310
Alloys (gross weight)	6,080	1,210	356	437	386	2,390
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	7,200	1,210	521	1,080	1,150	3,970
Total	38,300	6,360	2,700	3,840	3,750	16,700

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.